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TRADEMA

#10

MODIFIED PTO/SB/64 (05-03)

PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT  
ABANDONED UNINTENTIONALLY UNDER 37 C.F.R. § 1.137(b)

Docket No. Q63660

First named inventor: Isao HIROSE

Group Art Unit: 3725

Application Number: 09/834,946

Examiner: Jimmy T. Nguyen

Filed: April 16, 2001

Title: CALENDER ROLLERS AND METHOD FOR PRODUCING LAMINATED SHEET

Attention: Office of Petitions

**MAIL STOP PETITION**

Commissioner for Patents

P.O. Box 1450, Alexandria, VA 22313-1450

FAX: (703) 308-6916

The above-identified application became abandoned for failure to file a timely and proper reply to a notice or action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the Office notice or action plus any extensions of time actually obtained.

**APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION**

NOTE: A grantable petition requires the following items:

1. Petition fee

Small entity - fee \$ \_\_\_\_ (37 C.F.R. § 1.17(m)). Applicant claims small entity status. See 37 C.F.R. § 1.27.  
 Other than small entity - fee \$ 1,330.00 (37 C.F.R. § 1.17(m)).

2. Reply and/or fee

A. The reply and/or fee to the above-noted Office action in the form of  
Amendment under 37 C.F.R. § 1.116 (identify type of reply):

has been filed previously on April 30, 2003.  
 a copy of which is enclosed herewith.  
 and a Notice of Appeal with Petition for Extension of Time

B. The issue fee of \$ \_\_\_\_.

has been paid previously on \_\_\_\_.  
 is enclosed herewith.

3. Terminal disclaimer with disclaimer fee

Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.  
 A terminal disclaimer (and disclaimer fee (37 C.F.R. § 1.20(d)) of \$ \_\_\_\_ for a small entity or \$ \_\_\_\_ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. STATEMENT: [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filing a petition under 37 C.F.R. § 1.137(b) was unintentional (MPEP § 711.03(c), subsections (III)(C) and (D))].

The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 C.F.R. § 1.137(b) was unintentional.

See Attached Statement.

October 1, 2003

Signature

*John K. Shin*

Date

202-293-7060

John K. Shin

48,409

Telephone

Typed or printed name

Reg. No.

10/03/2003 AWONDAF1 00000037 09834946

SUGHRUE MION, PLLC  
WASHINGTON OFFICE

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CUSTOMER NUMBER

Enclosures:  Fee Payment  
 Reply (Copy of Amendment under 37 C.F.R. § 1.116)  
 Terminal Disclaimer  
 Additional sheets containing statements establishing unintentional delay  
 Notice of Appeal with Petition for Extension of Time

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OFFICE OF PETITIONS



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q63660

Isao HIROSE, et al.

Appln. No.: 09/834,946

Group Art Unit: 3725

Confirmation No.: 5342

Examiner: Jimmy T. Nguyen

Filed: April 16, 2001

For: CALENDER ROLLERS AND METHOD FOR PRODUCING LAMINATED SHEET

**STATEMENT FOR PETITION TO REVIVE UNDER 37 C.F.R. § 1.137(b) AND  
PAYMENT OF FEE UNDER 37 C.F.R. § 1.17(m)**

**MAIL STOP PETITION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants hereby petition for revival of the above-identified application under 37 C.F.R. § 1.137(b) on the ground that the application was unintentionally abandoned by failing to file a timely reply to the PTO Communication dated January 30, 2003. The undersigned attorney states that the abandonment was unintentional, and also states that the delay in prosecution was unintentional.

The application was abandoned for failure to respond to the Office Action dated January 30, 2003, within the time period set therein. A response to the January 30, 2003, Office Action

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OCT 03 2003

**OFFICE OF PETITIONS**

PETITION TO REVIVE  
Application Number 09/834,946

was in fact filed in the USPTO within the required time period on April 30, 2003, but may have been misplaced by the USPTO (no Advisory Action has been received by Applicants).

Applicants unintentionally missed the last day for filing a Notice of Appeal on July 30, 2003, and realized the error upon receipt of the Notice of Abandonment, mailed September 4, 2003.

Submitted herewith in support of the Petition are the following documents:

1. Final Office Action, mailed by the USPTO on January 30, 2003.
2. Copies of the Amendment Under 37 C.F.R. § 1.116, the Request for Approval of Proposed Drawing Corrections, the Information Disclosure Statement, Statement under 37 C.F.R. § 1.97(e), and Statement under 37 C.F.R. § 1.704(d), filed April 30, 2003.
3. Stamped Returned Receipt bearing USPTO mail room stamp of April 30, 2003 and identifying as filed the papers entitled "Amendment Under 37 C.F.R. § 1.116", "Request for Approval of Proposed Drawing Corrections (w/ three pages of corrected drawing)", "Information Disclosure Statement (in duplicate with reference PTO/SB/08 A & B (modified) and Check No. 221192 in the amount of \$180.00)", "Statement Under 37 C.F.R. § 1.97(e)", and "Statement Under 37 C.F.R. § 1.704(d)".
4. Notice of Abandonment mailed September 4, 2003.

From documents 1-3 it is clear that an Amendment Under 37 C.F.R. § 1.116 was filed with the USPTO on April 30, 2003, in response to the January 30, 2003, Office Action, within the required response time period. Applicants respectfully request entry and consideration of the Amendment filed April 30, 2003.

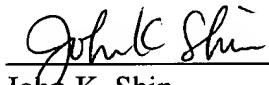
Applicants submit concurrently herewith a Notice of Appeal and a Petition for a three-month Extension of Time to maintain the pendency of the application once the application is revived.

PETITION TO REVIVE  
Application Number 09/834,946

A check for the statutory Petition Fee of \$1,330.00 under 37 C.F.R. § 1.17(m) is attached.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

  
\_\_\_\_\_  
John K. Shin  
Registration No. 48,409

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
23373  
CUSTOMER NUMBER

Date: October 1, 2003



UNITED STATES PATENT AND TRADEMARK OFFICE

OCT 01 2003

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,946	01/16/2001	Isao Hirose	Q63660	5342

7590 01/30/2003  
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER

NGUYEN, JIMMY T

ART UNIT

PAPER NUMBER

3725

DATE MAILED: 01/30/2003

DOCKETED  
FEB 03 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/834,946	HIROSE ET AL.
Examiner	Art Unit
Jimmy T Nguyen	3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

- A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 November 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-12 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 16 April 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6) Other: **RECEIVED**

## DETAILED ACTION

### *Response to Amendment*

The amendment filed on November 26, 2002 under 37 CFR 1.131 has been considered and an action on the merits follows.

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, means for heating (claim 2), means for vibrating (claim 3), a band heater (claim 11), and an air cylinder (claim 12) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Line 11, the claim amended by adding the type of releasing the layer by curling it with the release member, the specification (from page 7 and thereafter, as mentioned in applicant's remarks) does not clearly show the specific type of curling process beside the releasing process.

Further, it is inherent that the layer is curl/peel off the roll when the layer is being released by the release member.

Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not support “a band heater”, the specification only discloses an electric heater (page 10, line 21).

***Claim Rejections - 35 USC § 102***

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 3, 5, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Masayuki et al. (JP363158156A). See discussion in previous Office action and the discussion under 35 U.S.C. 112, first paragraph above regarding the new amended limitation “by curling it”.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masayuki et al. Masayuki. See discussion in previous Office action.

Claims 2, 6, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masayuki, in view of Borgstrom (USPN 6,325,878). See discussion in previous Office action. With regard to a band heater (claim 11), it would have been an obvious matter of design choice to have the band heater as the heating means, since applicant has not disclosed that the band heater solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with Borgstrom's heating means.

Claims 4, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masayuki et al., in view of Gerhardt (USPN 5,601,868). See discussion in previous Office action. With regard to a specific type of vibrating means (claim 12), the use of an air cylinder is an obvious matter of design choice. However, note that Masayuki also discloses means for vibrating (15) such as an air cylinder, so that the tip of the doctor knife is apart from the outer surface of the rolls (3, 4) (see page 2, right col., last four lines to page 3, left col., lines 1-2).

### *Response to Arguments*

Applicant's arguments filed November 26, 2002 have been fully considered but they are not persuasive.

Applicant argues that the Masayuki reference does not show "a release member is disposed behind a nip portion of a center roll". The release element (14) is, in fact "behind" the holding roller (4). Note that the center roller (page 5, line 8) is not claimed. Further, the argument that Masayuki is disposed "at the nip portion" (page 5, line 10) is not found persuasive because the knife would simply jam (at the nip portion) if it operated as interpreted by applicant.

Applicant does not clearly define the term “behind” the nip portion. If the release member is only a millimeter away from the center of the nip portion, it is considered that the release member is behind the nip portion. Figure 1 clearly shows the doctor knife (14) in contact with a holding roll (4) near a nip portion between roll (4) and roll (12). Therefore, it is inherent that the release member is arranged in contact with the holding roll (4) “behind” the nip portion, and it is inherent that the plastic material sheet layer is curl/peel off the roll when being release by the release member.

With regard to claims 2 and 6, applicant argues that Borgstrom neither describes nor suggests the use of scraping doctor knife to improve surface smoothness of a plastic material sheet, and the specific meaning and effect of heating. However, the argument is not found persuasive because it relates to subject matter that is not in the claims.

With regard to claims 4 and 8, applicant argues that Gerhardt neither describes nor suggests the use of vibrating doctor knife to improve surface smoothness of a plastic material sheet. However, the argument is not found persuasive because it relates to subject matter that is not in the claims. Note that Masayuki also discloses a similar type of vibrating blade by using air cylinder as discussed above.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

Art Unit: 3725

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T Nguyen whose telephone number is (703) 305-5304. The examiner can normally be reached on Mon-Thur 8:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allen Ostrager can be reached on (703) 308-3136. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3579 for regular communications and (703) 305-3579 for After Final communications.

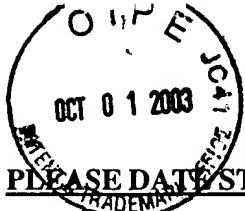
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

JTNguyen  
January 28, 2003



ALLEN OSTRAGER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700

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OFFICE OF PETITIONS



**FILING RECEIPT**  
**PLEASE DATE STAMP AND RETURN TO US - BOX 235X**

82

In re application of

Isao HIROSE, et al.

Appln. No.: 09/834,946

Group Art Unit: 3725

Confirmation No.: 5342

Examiner: Jimmy T. Nguyen

Filed: April 16, 2001

For: CALENDER ROLLERS AND METHOD FOR PRODUCING LAMINATED SHEET

PAPER(S) FILED ENTITLED:

1. Amendment Under 37 C.F.R. §1.116;
2. Request for Approval of Proposed Drawing Corrections (w/ three pages of corrected drawing);
3. Information Disclosure Statement (in duplicate with reference, PTO/SB/08 A & B (modified) and Check No. 221192 in the amount of \$180.00);
4. Statement Under 37 C.F.R. § 1.97(e); and
5. Statement Under 37 C.F.R. § 1.704(d).

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE



23373

PATENT TRADEMARK OFFICE



DOCKET NO.: Q63660  
ATTORNEY/SEC: MXB/JTC/JKS/dab  
Date Filed: April 30, 2003

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OFFICE OF PETITIONS

AMENDMENT UNDER 37 C.F.R. § 1.116  
EXPEDITED PROCEDURE  
GROUP 3725  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q63660

Isao HIROSE, et al.

Appln. No.: 09/834,946

Group Art Unit: 3725

Confirmation No.: 5342

Examiner: Jimmy T. Nguyen

Filed: April 16, 2001

For: CALENDER ROLLERS AND METHOD FOR PRODUCING LAMINATED SHEET

AMENDMENT UNDER 37 C.F.R. § 1.116

**FILED**

APR 30 2003

ATTN: BOX AF

Commissioner for Patents  
Washington, D.C. 20231

Sir:

This Amendment is submitted in response to the Office Action dated January 30, 2003.

Please amend the above-identified application as follows:

**IN THE SPECIFICATION:**

Please replace the following paragraph on page 4, after the title heading “Brief Description of the Drawings” beginning at line 15 and ending on line 17, before the paragraph describing Fig. 2.:

Fig. 1A is a view illustrating calendar rollers provided with a doctor knife disposed behind a nip portion of a center roller (holding roller) for holding a plastic material sheet. Fig. 1B illustrates a means for heating a release member with a band heater, indicated by reference number 42, attached to a doctor knife, indicated by reference number 41. Fig. 1C illustrates a

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OFFICE OF PETITIONS

AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/834,946

means for vibrating a release member with an air cylinder, indicated by reference number 43, attached to a doctor knife, indicated by reference number 41.

**IN THE CLAIMS:**

**Please enter the following amended claims:**

1. (Amended) A set of calender rollers comprising at least three rolling rollers and one feed roller, for rolling a plastic material into a plastic material sheet and for laminating said plastic material sheet onto a base material sheet at a nip portion to be formed into a laminated plastic material sheet, wherein

    said nip portion is formed with a pair of nip rollers including a holding roller for holding said rolled plastic material sheet, and behind said nip portion of a center roller, a release member for releasing said laminated plastic material sheet from said holding roller is arranged in proximity to or in contact with said holding roller, and the feed roller for providing a releasing force to the laminated plastic material sheet is arranged at the position lower than the position of the nip portion.

5. (Twice Amended) A method for producing a laminated sheet by laminating a plastic material sheet on a base material sheet using a set of calender rollers, comprising

    providing said set of calender rollers which comprises at least three rolling rollers and one feed roller, a nip portion is formed with a pair of nip rollers including a holding roller for holding a rolled plastic material sheet, and behind said nip portion of a center roller, a release

AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/834,946

member is arranged in proximity to or in contact with said holding roller, and the feed roller is arranged at the position lower than the position of the nip portion, and

rolling a plastic material into said plastic material sheet, then

laminating said plastic material sheet onto a base material sheet at said nip portion, the resulting laminated sheet remains held on the holding roller due to the tackiness of the plastic material to the position of the release member, and thereafter

releasing the plastic material sheet layer of said laminated sheet from said holding roller by curling it toward the direction of the feed roller with said release member.

AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/834,946

**REMARKS**

Claims 1-12 are all the claims pending in the application.

Reconsideration and review on the merits are respectfully requested.

***Drawings***

The Examiner has objected to the drawings under 37 CFR 1.83(a) because the drawings allegedly do not show every feature of the invention specified in the claims. The Examiner states that means for heating (Claim 2), means for vibrating (Claim 3), a band heater (Claim 11), and an air cylinder (Claim 12) must be shown or the feature(s) canceled from the claim(s).

Applicants respond as follows.

Applicants submit a Request for Approval of Proposed Drawing Corrections concurrently herewith and provide corrected drawings showing the means for heating (a band heater) in Fig. 1B and the means for vibrating (an air cylinder) in Fig. 1C. The conventional features of a band heater and an air cylinder are illustrated in the drawings in the form of labeled rectangular boxes as their detailed illustrations are not essential for a proper understanding of the invention, in accordance with 37 C.F.R. § 1.83. Accordingly, Applicants respectfully request withdrawal of the objections to the drawings.

***Claim Rejections - 35 USC § 112***

Claim 5 has been rejected under 35 U.S.C. 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled

AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/834,946

in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In the Office Action, the Examiner states that in "Line 11, the claim amended by adding the type of releasing the layer by curling it with the release member, the specification (from page 7 and thereafter, as mentioned in applicant's remarks) does not clearly show the specific type of curling process beside the releasing process. Further, it is inherent that the layer is curl/peel off the roll when the layer is being released by the release member."

Claim 11 has been rejected under 35 U.S.C. 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner states that the specification does not support "a band heater", the specification only discloses an electric heater (page 10, line 21).

Applicants respond as follows.

Regarding the rejection to Claim 5 (the layer is curled/peeled off the roll), Applicants traverse the Examiner's rejection of Claim 5 by pointing to Fig. 1 which clearly shows that a plastic material sheet layer of said laminated sheet is released from said holding roller by curling it with said release member. Furthermore, Applicants submit that the curling process is deliberately created by the Applicants to support certain unexpected benefits in production such as a smoother tackiness surface without generating the projections and depressions on the surface of the pressure-sensitive adhesive.

AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/834,946

Regarding the rejection to Claim 11 (the use of the band heater), Applicants traverse the rejection by pointing out that Example 2 at page 12, lines 12 to 13 of the specification as originally filed supports the use of the band heater.

For the foregoing reasons, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 112.

*Claim Rejections - 35 USC § 102*

Claims 1, 3, 5, 7 and 9 have been rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Masayuki et al. (JP 363158156A) for the reasons stated in the previous Office action and the discussion under 35 U.S.C. 112, first paragraph above regarding the limitation “by curling it”.

Applicants respond as follows.

In order to more clearly claim their invention, Applicants amend Claims 1 and 5 which more clearly establish distinctions over Masayuki et al. Claims 1 and 5 recite the description that a set of calender rollers comprises at least three rolling rollers and one feed roller, wherein a nip portion is formed with a pair of nip rollers including a holding roller for holding said rolled plastic material sheet, and behind said nip portion of a center roller, a release member for releasing a laminated plastic material sheet from the holding roller is arranged in proximity to or in contact with the holding roller, and the feed roller for providing a releasing force to the laminated plastic material sheet is arranged at the position lower than the position of the nip portion. Support for the rolling rollers is clear from Fig. 1, elements 1, 2, 3 and 4, in the

AMENDMENT UNDER 37 C.F.R. § 1.116  
U.S. Appln. No. 09/834,946

specification as originally filed. Support for the feed roller and its location can be found, for example, in the description of the non-tacky roller on page 10, line 6, and Fig. 1, reference number 22, in the specification as originally filed. Support for the center roller can be found, for example, at page 9, line 1 and element 3 of Fig. 1 of the specification as originally filed. No new matter has been added. Entry of the amendment is respectfully requested.

In Claim 5, Applicants have also amended the method claim to more clearly state the process that when laminating the plastic material sheet onto a base material sheet at the nip portion, the resulting laminated sheet remains held on the holding roller due to the tackiness of the plastic material to the position of the release member, and thereafter the plastic material sheet layer of the laminated sheet is released from the holding roller by curling it toward the direction of the feed roller with the release member. Support can be found in the last paragraph bridging pages 9 and 10 and Fig. 1 of the specification as originally filed. No new matter has been added. Entry of the amendment is respectfully requested.

Regarding Claim 1, Masayuki et al does not anticipate at least the description that a set of calender rollers comprises at least three rolling rollers and one feed roller, wherein a nip portion is formed with a pair of nip rollers including a holding roller for holding said rolled plastic material sheet, and behind said nip portion of a center roller, a release member for releasing a laminated plastic material sheet from the holding roller is arranged in proximity to or in contact with the holding roller, and the feed roller for providing a releasing force to the laminated plastic material sheet is arranged at the position lower than the position of the nip portion.

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Regarding Claim 5, Masayuki et al does not anticipate at least the process that when laminating the plastic material sheet onto a base material sheet at the nip portion, the resulting laminated sheet remains held on the holding roller due to the tackiness of the plastic material to the position of the release member, and thereafter the plastic material sheet layer of the laminated sheet is released from the holding roller by curling it toward the direction of the feed roller with the release member.

Furthermore, Applicants previously remarked on Masayuki et al in our response to the prior office action which Applicants incorporate by reference herein. As can be seen from Masayuki's Figs. 1 to 3, the doctor knife 14 (and 8) is disposed at a nip portion such that it is inserted deeply. Applicants respectfully submit that the above constitution is also apparent from the description on page 2, lower right-hand column, lines 13 to 17, that is, "A doctor knife 8 is disposed such that an edge of a blade thereof is inserted into a gap 9; an end of the edge of the blade is installed in contact with the circumferential surface of the first rolling roller 3 at the vicinity on the line connecting revolving centers of the first and second rolling rollers 3, 4 as shown in Fig. 2". (emphasis added). Further, Applicants respectfully submit that Masayuki et al describes on page 3, lower left-hand column, line 16 to lower right-hand column, line 5 (as translated from Japanese to English) that "the pressure-sensitive adhesive is transferred to the second rolling roller 4 while being made even, when it comes into slide-contact with the lower surface of edge of the doctor knife". Namely, Masayuki et al describes that the doctor knife comes into contact with the pressure-sensitive adhesive in such a manner that the pressure-sensitive adhesive is made even by the lower surface of the edge of the doctor knife. A support

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coated with the pressure-sensitive adhesive is illustrated such that the support is released in the direction of the tangential line of the periphery of the roller and is, therefore, hardly curled.

Although the Examiner concludes that if the knife is disposed “at the nip portion”, the knife would simply jam, Applicants respectfully submit that, after taking the above description of Masayuki et al into consideration, the knife in Masayuki is, in fact, inserted and disposed at the vicinity of the nip portion whereas, on the other hand, a release member (e.g., a doctor knife) of calendar rollers according to the present invention is disposed behind a nip portion of a center roller.

When the laminate is released in Masayuki et al, the knife makes the surface of the pressure-sensitive adhesive layer even at the lower surface of the edge of the blade of the knife, by which craters created when releasing the layer from the rolling roller are made even to form a uniform surface. However, when the doctor knife is disposed such that the surface of the doctor knife comes into contact with the pressure-sensitive adhesive, although a large cavity such as the crater may be made even, the surface is still made rough to decrease the surface smoothness. However, in the present invention, the doctor knife is disposed such that the doctor knife surface comes into contact with the pressure-sensitive adhesive as linearly as possible, and the laminate sheet is released by being curled downward from the tangential line direction of a holding roller, by which a pressure-sensitive sheet excellent in surface smoothness can be formed without generating projections and depressions on the surface of the pressure-sensitive adhesive.

For the foregoing reasons, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b).

*Claim Rejections - 35 USC §103*

Claim 10 has been rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Masayuki et al. for the reasons discussed in a previous Office action.

Claims 2, 6, and 11 have been rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Masayuki in view of Borgstrom (USPN 6,325,878). With regard to a band heater (claim 11), the Examiner states that it would have been an obvious matter of design choice to have the band heater as the heating means, since Applicants have not disclosed that the band heater solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with Borgstrom's heating means.

Claims 4, 8, and 12 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Masayuki in view of Gerhardt (USPN 5,601,868). With regard to a specific type of vibrating means (claim 12), the Examiner states that the use of an air cylinder is an obvious matter of design choice. The Examiner also asserts that Masayuki also discloses means for vibrating (15) such as an air cylinder, so that the tip of the doctor knife is apart from the outer surface of the rolls (3, 4).

Applicants respectfully traverse the rejections under 35 U.S.C. § 103(a) as follows.

Based on the foregoing reasons that Applicants have given for the removal of Masayuki et al as a prior art reference for the anticipation rejections, Applicants submit the combination of Masayuki et al with secondary references fails to render Applicants' claimed invention unpatentable under 35 U.S.C. § 103(a). The dependent claims are patentable for at least the

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same reasons as set forth above covering Claims 1 and 5. Neither the reference to Borgstrom nor to Gerhardt overcomes the deficiencies of Masayuki et al in light of newly amended Claims 1 and 5.

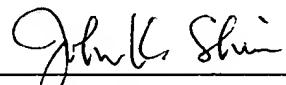
Accordingly, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103(a).

*Conclusion*

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
\_\_\_\_\_  
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WASHINGTON OFFICE



23373

PATENT TRADEMARK OFFICE

Date: April 30, 2003

APPENDIX  
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please replace the following paragraph on page 4, after the title heading “Brief Description of the Drawings” beginning at line 15 and ending on line 17, before the paragraph describing Fig. 2.:

Fig. 1A is a view illustrating calendar rollers provided with a doctor knife disposed behind a nip portion of a center roller (holding roller) for holding a plastic material sheet. Fig. 1B illustrates a means for heating a release member with a band heater, indicated by reference number 42, attached to a doctor knife, indicated by reference number 41. Fig. 1C illustrates a means for vibrating a release member with an air cylinder, indicated by reference number 43, attached to a doctor knife, indicated by reference number 41.

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A set of calender rollers comprising at least three rolling rollers and one feed roller, for rolling a plastic material into a plastic material sheet and for laminating said plastic material sheet onto a base material sheet at a nip portion to be formed into a laminated plastic material sheet, wherein

    said nip portion is formed with a pair of nip rollers including a holding roller for holding said rolled plastic material sheet, and behind said nip portion of a center roller, a release member

for releasing said laminated plastic material sheet from said holding roller is arranged in proximity to or in contact with said holding roller, and the feed roller for providing a releasing force to the laminated plastic material sheet is arranged at the position lower than the position of the nip portion.

5. (Twice Amended) A method for producing a laminated sheet by laminating a plastic material sheet on a base material sheet using a set of calender rollers, comprising

providing said set of calender rollers which comprises at least three rolling rollers and one feed roller, a nip portion is formed with a pair of nip rollers including a holding roller for holding a rolled plastic material sheet, and behind said nip portion of a center roller, a release member is arranged in proximity to or in contact with said holding roller, and the feed roller is arranged at the position lower than the position of the nip portion, and

rolling a plastic material into said plastic material sheet, then

laminating said plastic material sheet onto a base material sheet at said nip portion, the resulting laminated sheet remains held on the holding roller due to the tackiness of the plastic material to the position of the release member, and thereafter

releasing the plastic material sheet layer of said laminated sheet from said holding roller by curling it toward the direction of the feed roller with said release member.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q63660

Isao HIROSE, et al.

Appln. No.: 09/834,946

Group Art Unit: 3725

Confirmation No.: 5342

Examiner: Jimmy T. Nguyen

Filed: April 16, 2001

For: CALENDER ROLLERS AND METHOD FOR PRODUCING LAMINATED SHEET

REQUEST FOR APPROVAL OF PROPOSED DRAWING CORRECTIONS

FILED

Commissioner for Patents  
Washington, D.C. 20231

APR 30 2003

Sir:

Submitted herewith please find 3 sheets of proposed drawing corrections (Figs. 1A, 1B and 1C) indicated in red ink with the changes described below. The Examiner is respectfully requested to acknowledge receipt of the drawing corrections and to approve the changes.

Fig. 1A is a view illustrating calendar rollers provided with a doctor knife disposed behind a nip portion of a center roller (holding roller) for holding a plastic material sheet. Fig. 1B illustrates a means for heating a release member with a band heater, indicated by reference number 42, attached to a doctor knife, indicated by reference number 41. Fig. 1C illustrates a means for vibrating a release member with an air cylinder, indicated by reference number 43, attached to a doctor knife, indicated by reference number 41.

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REQUEST FOR APPROVAL OF  
PROPOSED DRAWING CORRECTIONS  
U.S. Application No.: 09/834,946

Support for the drawings may be found, for example, in Examples 2 and 3 at page 12.

No new matter is added. Applicants respectfully request approval of the attached corrected drawings.

Respectfully submitted,



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Date: April 30, 2003

*FIG. 1A*

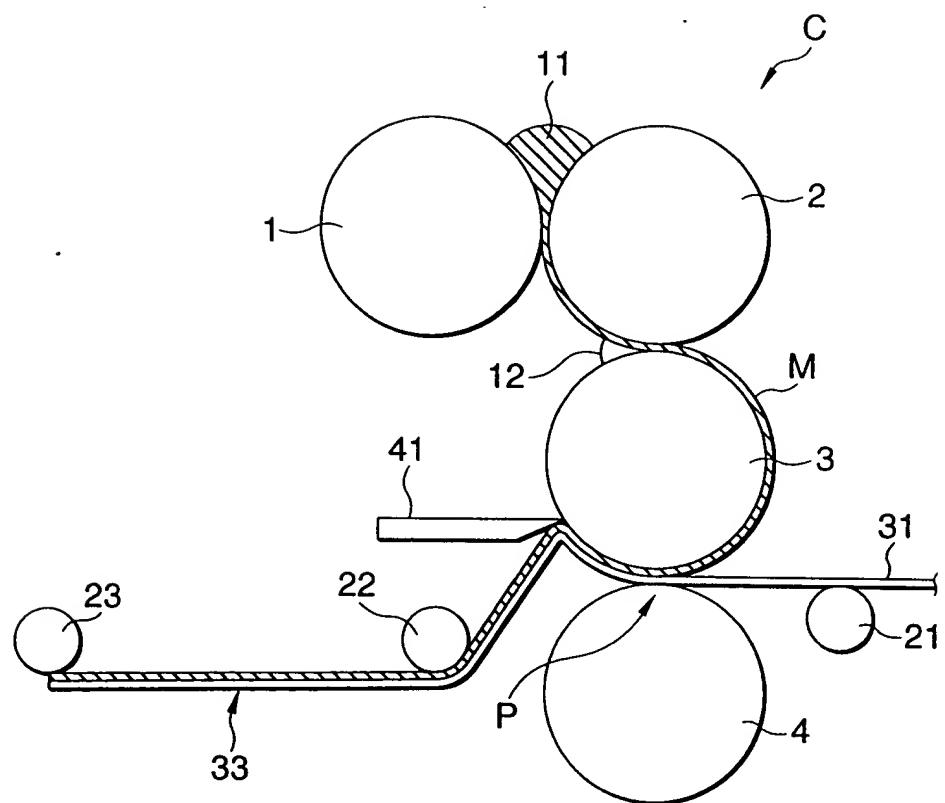


FIG. 1C

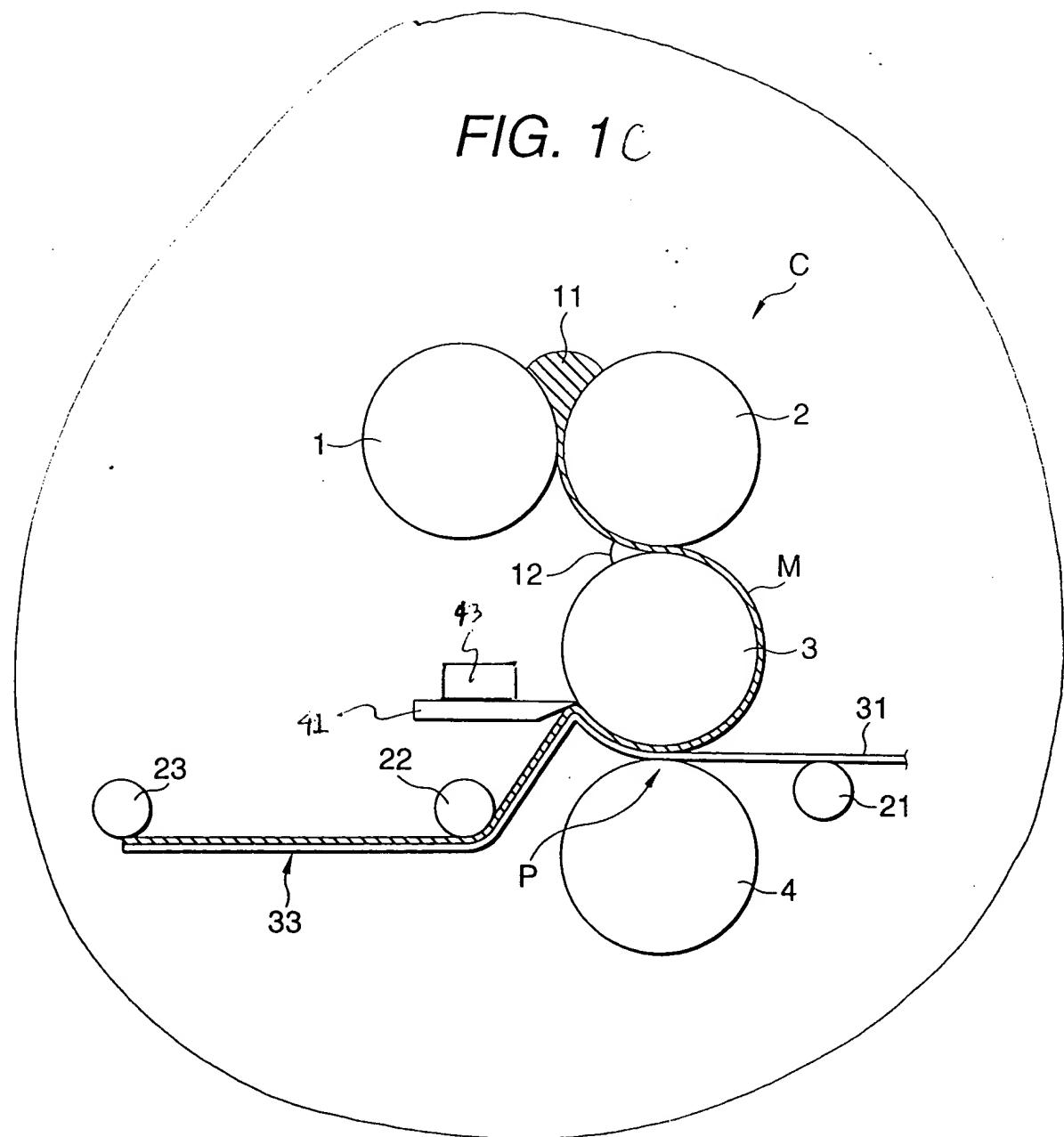
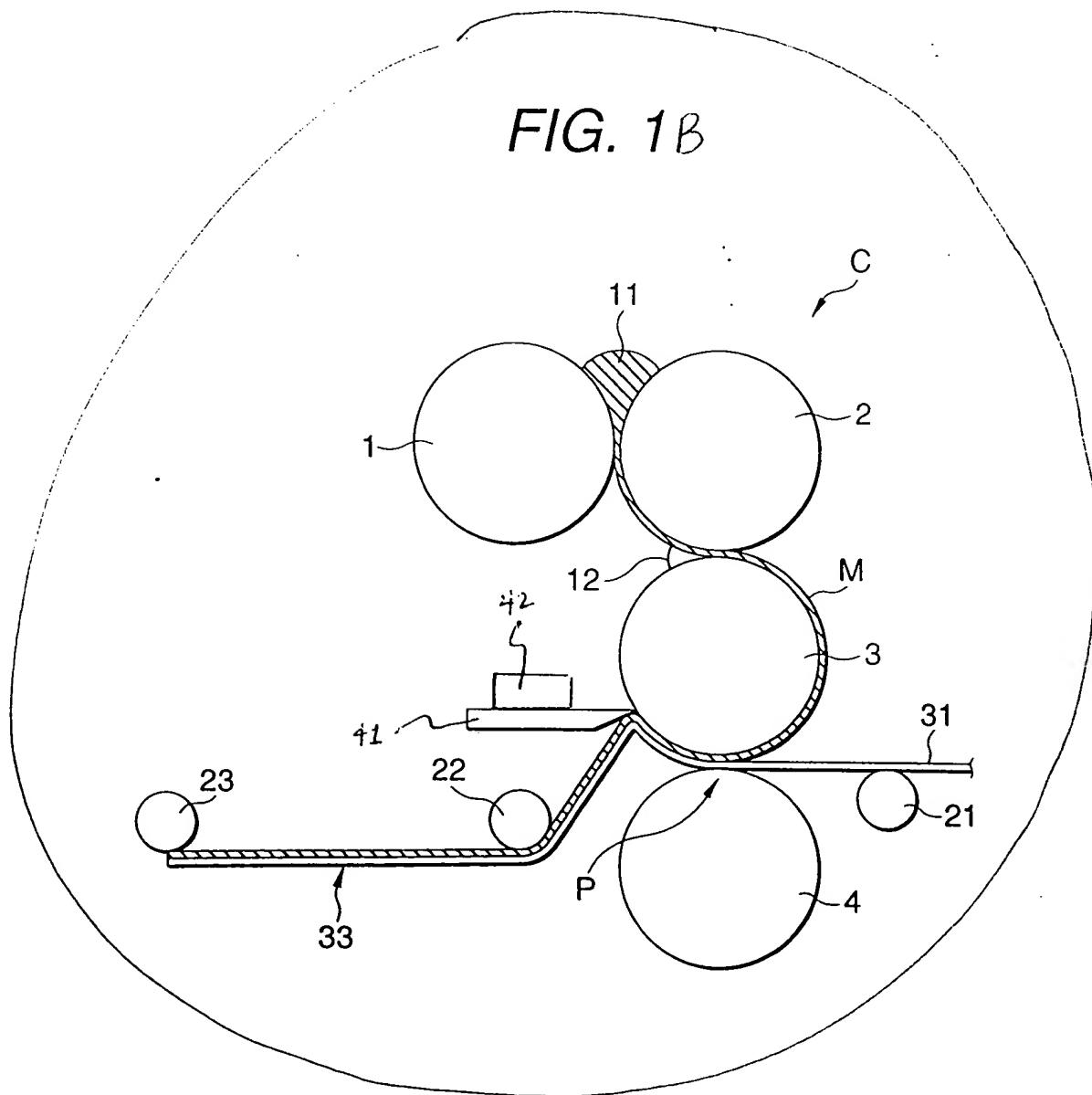


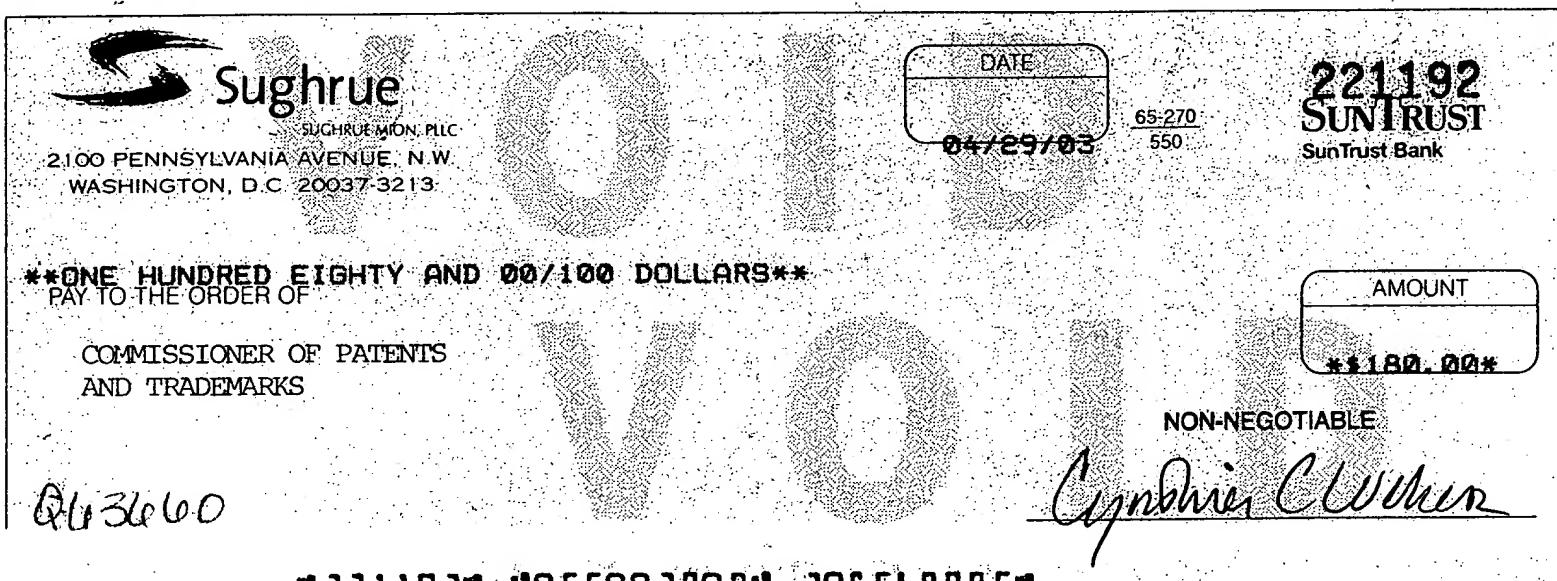
FIG. 1B



04/28/03 OPER: NAN 124001 Q63660 Information Disclosure Statement

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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q63660

Isao HIROSE, et al.

Appln. No.: 09/834,946

Group Art Unit: 3725

Confirmation No.: 5342

Examiner: Jimmy T. Nguyen

Filed: April 16, 2001

For: CALENDER ROLLERS AND METHOD FOR PRODUCING LAMINATED SHEET

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §§ 1.97 and 1.98

FILED

Commissioner for Patents  
Washington, D.C. 20231

APR 30 2003

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicants hereby notify the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith.

The present Information Disclosure Statement is being filed after either a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution in the application (whichever is earlier), but before payment of the Issue Fee, and therefore Applicant is submitting herewith a check for the fee of \$180.00 under 37 C.F.R. § 1.17(p), and a Statement Under 37 C.F.R. § 1.97(e). The USPTO is directed and authorized to charge all required fees, except

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INFORMATION DISCLOSURE STATEMENT

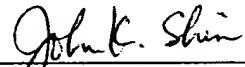
U.S. Appln. No.: 09/834,946

for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

The present Information Disclosure Statement is being filed thirty days or fewer from the communication from a foreign patent office and a Statement Under 37 C.F.R. §1.704(d) is attached.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,



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WASHINGTON OFFICE



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PATENT TRADEMARK OFFICE

Date: April 30, 2003



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,946	04/16/2001	Isao Hirose	Q63660	5342

7590 09/04/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
WASHINGTON, DC 20037

EXAMINER

NGUYEN, JIMMY T

ART UNIT

PAPER NUMBER

3725

DATE MAILED: 09/04/2003

**DOCKETED**  
SEP 05 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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**OFFICE OF PETITIONS**

<b>Notice of Abandonment</b>	Application No.	Applicant(s)
	09/834,946	HIROSE ET AL.
	Examiner Jimmy T Nguyen	Art Unit 3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1.  Applicant's failure to timely file a proper reply to the Office letter mailed on 30 January 2003.
  - (a)  A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b)  A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection. (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c)  A reply was received on \_\_\_\_\_ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d)  No reply has been received.
2.  Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a)  The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
  - (b)  The submitted fee of \$\_\_\_\_\_ is insufficient. A balance of \$\_\_\_\_\_ is due.  
The issue fee required by 37 CFR 1.18 is \$\_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$\_\_\_\_\_.
  - (c)  The issue fee and publication fee, if applicable, has not been received.
3.  Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a)  Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b)  No corrected drawings have been received.
4.  The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5.  The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6.  The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7.  The reason(s) below:



ALLEN OSTRAGER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.